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A case of lymphogranuloma venereum of 20 years' duration

Isolation of Chlamydia trachomatis from perianal lesions

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SUMMARY *Chlamydia trachomatis* was isolated from perianal lesions in a patient in whom lymphogranuloma venereum had been diagnosed 20 years previously. Treatment with tetracycline resulted in a pronounced improvement. Although *C trachomatis* is known to persist for a long time in the host, isolation of the micro-organism from infected tissues after such a prolonged period has not previously been reported.

Introduction

Published reports on chlamydial infections show an increasing interest in the subject. In addition to its long established role in trachoma, inclusion conjunctivitis, and lymphogranuloma venereum (LGV), the aetiological role of *Chlamydia trachomatis* in a growing number of diseases has been documented.[1] Little is known however about the natural history of chlamydial infection. Although LGV has occurred less frequently in the past decades, we describe here a case of perianal LGV of 20 years' duration in a male patient.

Case report

An 80-year-old man was admitted to hospital in December 1978 because of polypoid perianal lesions accompanied by constipation and perianal discharge. The perianal findings had been first noted 20 years previously when the presenting symptom was pruritus ani; the abundant purulent discharge compelled the patient to use several dressings a day. A biopsy performed on these lesions in 1961 showed multiple granulomas with diamond-shaped suppurating centres and multinucleated giant cells of foreign-body type characteristic of LGV (fig 1). The patient received no specific therapy at that time.

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Clinical examination in 1978 showed perianal polypoid lesions, some of which were fluctuant, masking the anal orifice. Several perianal fistulas produced purulent discharge (fig 2). The remainder of the examination, including the genital and the inguinal areas, was unremarkable. Routine laboratory tests showed a moderately increased erythrocyte sedimentation rate (37 mm in first hour), and the presence of antinuclear factor (ANF).

Cultures of the anal discharge gave negative results, including those for *Mycobacterium tuberculosis* and fungi. Two serum samples gave a positive complement-fixation test result at a 1/32 dilution with a suspension of *Chlamydia psittaci* (Ornithosis Antigen, Behring Institute, Marburg/Lahn, W Germany). Serological tests (Wassermann, VDRL, Rappoport) for syphilis gave negative results. Chest roentgenogram, and small bowel and barium enema series, showed no abnormal findings. Proctoscopy demonstrated slightly hyperaemic mucosa in the anus but was otherwise normal. Histological sections of biopsy specimens showed chronic inflammation without granulomas or neoplastic changes. Perianal biopsy material was inoculated into McCoy cell cultures treated with cytochalasin B;[2] after 72 hours' incubation at 35°C typical chlamydial inclusions were found. Isolation was confirmed by passage of the organism in a second McCoy cell culture. Giemsa staining was performed for microscopical identification of the inclusion bodies specific for chlamydia (fig 3). Iodine staining gave a positive result for glycogen indicating *C trachomatis*. Further

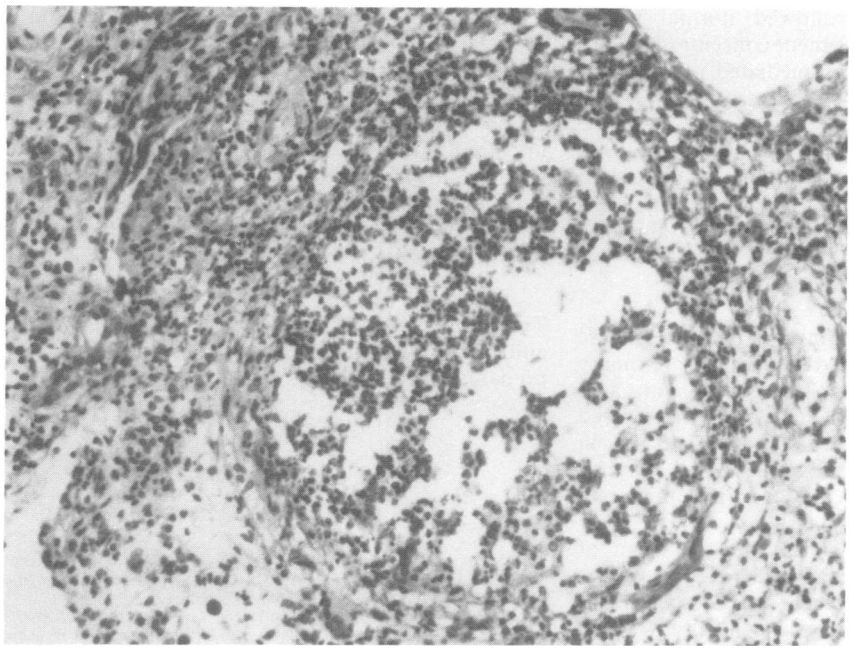

FIG 1 *Anal biopsy performed in 1961 showing a granuloma with suppuration (hematoxylin and eosin, magnification × 250).*

FIG 2 *Polypoid lesions of the perianal region with fistulas discharging pus (indicated by arrows).*

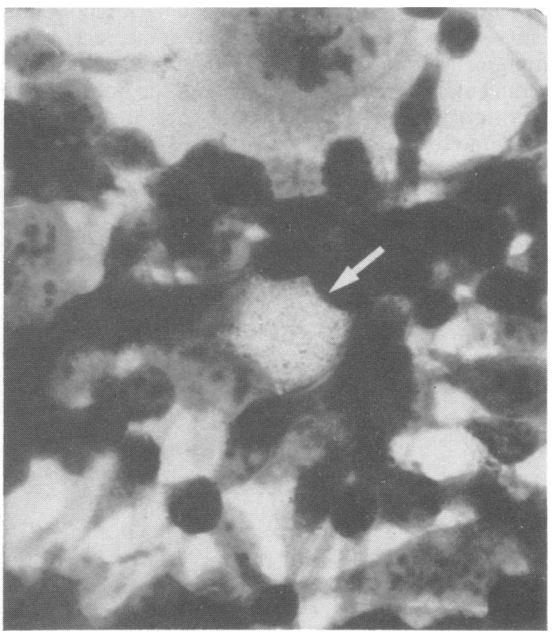

FIG 3 *Chlamydial inclusion bodies in McCoy tissue cultures as indicated by arrow (Giemsa staining, magnification × 1000).*

laboratory investigations showed normal serum immunoglobulin and complement concentrations but a marked suppression of cell-mediated responses to phytohaemagglutinin, concanavalin A, and pokeweed mitogens.

After LGV had been diagnosed, the patient was given oral tetracycline 2 g per day for 30 days. This resulted in a marked reduction of the anal discharge and disappearance of constipation and rectal pain.

Comment

LGV usually spreads during sexual intercourse through contact with infected material from primary lesions or ruptured lymph nodes and with anal discharge. Homosexuality has been considered important in the aetiology of anorectal lesions in men.[3] A non-venereal transmission by way of clothing has also been reported.[4] Our patient gave no history of homosexual contact.

Several authors[5,6] have stated that the agent of LGV can persist in the human host for many years. Recently, *C trachomatis* was reisolated from the genital tract of asymptomatic women after 15 months' follow-up.[1] However, isolation of this intracellular micro-organism after such a long period, as in the present case, has not been previously documented.

Various laboratory findings have been reported in cases of LGV, such as hyperglobulinaemia, autoimmune serum factors, and increased erythrocyte sedimentation rate.[4,7] In our patient the only positive laboratory findings were the presence of ANF and a moderately increased erythrocyte sedimentation rate.

To the best of our knowledge, no information is available about the immunological status of patients with LGV. In the present case, normal concentrations of immunoglobulins and complement were found while cell-mediated immunity was markedly impaired. It remains unclear whether this impairment was the underlying factor in the persistence of the chlamydial infection or whether the cellular immune defect can be attributed to immunosuppression as a result of chronic infection.

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